

#### ABSTRACT

It is provide a filter for an exhaust gas having a high thermal conductivity irrespective of a relatively high porosity or showing characteristics that the whole of the filter containing a high refractive index substance or pigment is easily warmed but hardly cooled while making low the thermal conductivity of the filter as a whole. This filter is provided with a catalyst coat layer formed by carrying a catalyst active component on a surface of a porous ceramic carrier, in which a porosity of the porous ceramic carrier is 40-80% and a substance or a pigment indicating a thermal conductivity as the filter of 3-60 W/mk or having a large refractive index at a thermal conductivity of 0.3-3 W/mk.